

BHC-P-07.2 Health Hazards in Construction

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Revision Register		
Date	Version	Description - reason for change
01/05/2015	1	New procedure

Item	Details	Reference	Responsibility
1.0	Purpose		
1.1	Establishes the requirements for managing health hazards associated with construction activities. Task specific control measures are detailed in Appendix 1.		
2.0	Scope		
2.1	Applies to all construction activities whether managed by Contractors or Berkeley. The management of asbestos is detailed in BHC Procedure 'Asbestos'.	BHC-P-08.1	
3.0	Definitions		
3.1	Manual Handling Any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force.		
3.2	Noise Unwanted sound.		
3.3	Hand Arm Vibration Mechanical vibration which is transmitted into the hands and arms during work activity.		
3.4	Whole body Vibration Mechanical vibration transmitted into the body, when seated or standing, through supporting surfaces.		
3.5	Leptospirosis (Weil's disease)- Serious and sometimes fatal infection that is transmitted to humans by contact with urine from infected rats and cattle.		
3.6	Needle stick injury A piercing wound caused by a needle point.		
4.0	Main requirements		
4.1	Control of substances hazardous to health (COSHH) Wherever possible the contractor will alert the project team during post tender/ pre start meetings to the hazardous materials to be used during construction works. In this way steps can be taken to eliminate, substitute or reduce the use of hazardous substances. Before starting work, contractors must assess their operations for any risk of injury from exposure to hazardous substances. The findings of these assessments must be included within their risk assessment and method statement (RAMS). Evidence of individual health surveillance must be provided if requested.	BHC-F-07b Appendix 1 + 2	Project Manager Trade Contractor Trade Contractor
4.2	Manual handling operations The Principal Designer must ensure Designers keep manual handling to a minimum within the design process. Before starting work on site, contractors must assess their operations to determine any risk of injury from manual handling operations. The findings of these assessments must be included within the RAMS. Where manual handling of materials is unavoidable, contractors must provide RAMS that address the risks before work starts.	BHC-F-07a Appendix 2 BHC-F-05b	Principal Designer Trade Contractor

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Item	Details	Reference	Responsibility
4.3	<p>Noise at work</p> <p>The Principal Designer must ensure Designers eliminate or reduce the anticipated noise levels to the lowest level possible.</p> <p>Before starting work on site, contractors must assess their operations for risk of injury from exposure to noise. The findings of these assessments must be included within their RAMS.</p> <p>The assessment must:</p> <ul style="list-style-type: none"> • Select equipment, tools, machinery and processes that reduce noise levels; • Position plant or equipment to reduce exposure to noise; • Create hearing protection zones where identified in the noise assessment; • Give details of barriers and signage to control entry into hearing protection zones; • Ensure correct hearing protection is provided to anyone who may be affected by the works, and that it is compatible with other PPE. <p>Where exposure to noise is unavoidable, contractors must provide RAMS that address the risks before work starts.</p> <p>Evidence of individual health surveillance must be provided if requested.</p>	<p>BHC-F-07c</p> <p>Appendix 1+2</p> <p>BHC-F-05b</p>	<p>Principal Designer</p> <p>Trade Contractor</p>
4.4	<p>Hand arm vibration / whole body vibration</p> <p>The Principal Designer must ensure Designers eliminate or reduce the anticipated vibration levels to the lowest level possible.</p> <p>Before starting work on site, contractors must assess their operations to determine any risk of injury from exposure to vibration. The findings of these assessments must be included within the RAMS.</p> <p>The assessment must:</p> <ul style="list-style-type: none"> • Select equipment, tools, machinery and processes that reduce vibration levels; • Ensure plant and equipment is used and maintained to reduce the impact of vibration; • Ensure correct personal hearing protection is provided to anyone who may be affected by the works, and that it is compatible with other PPE; • Specify how work activities are to be monitored/supervised to ensure current exposure action values (EAV) or exposure limit value (ELV) are not exceeded; • Specify that vibration magnitudes are displayed on equipment; • Determine where health surveillance for their employees is required. <p>Where exposure to vibration is unavoidable, contractors must provide RAMS that address the risks before work starts.</p> <p>Evidence of individual health surveillance must be provided if requested.</p>	<p>Appendix 1+2</p> <p>BHC-F-05b</p>	<p>Principal Designer</p> <p>Trade Contractor</p>
4.5	<p>Lead</p> <p>The Principal Designer shall ensure Designers eliminate or reduce the exposure to lead to the lowest level possible. Consideration must also be given to manual handling operations associated with use of lead.</p> <p>Before starting work on site, contractors must assess their operations to determine any risk of injury from exposure to lead, including the presence of lead on any demolition or refurbishment sites. Where exposure to lead is unavoidable, contractors must provide RAMS that address the risks before work starts.</p> <p>The contractor must provide details of control measures which should include:</p> <ul style="list-style-type: none"> • Alternative measures for stripping lead such as chemical stripping or infra-red removal; • Wherever possible use only in external, designated areas (welding processes must be segregated with flame retardant screens); • Use in well ventilated area. Local exhaust ventilation systems to be used if ventilation is inadequate; • Restricted access to work areas ; • Gloves and respiratory protection as identified in RAMS; • Arrangements for the removal and disposal of lead from site; • Additional welfare requirements (e.g. hand washing facilities). <p>Evidence of individual health surveillance must be provided if requested.</p>	<p>Appendix 1+2</p>	<p>Principal Designer</p> <p>Trade Contractor</p>




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Item	Details	Reference	Responsibility
4.6	Leptospirosis (Weil's disease) The Berkeley project team must: <ul style="list-style-type: none"> Assess a project to consider possible risks of exposure to Leptospirosis; Apply control measures to reduce exposure; Provide suitable washing and changing facilities; Provide information and instruction about the disease including symptoms and likely sources; Implement measures to reduce the risk of infection including: <ul style="list-style-type: none"> a. Discouraging the presence of rats on site through good housekeeping; b. Covering any cuts and grazes before starting work; c. Washing exposed skin before eating, drinking or smoking; d. Washing exposed skin at the end of the working day; e. Wearing appropriate PPE at all times. 		Project Manager
4.7	Needle stick or hypodermic syringes The Berkeley project team must: <ul style="list-style-type: none"> Carry out a project assessment to consider possible risks of discarded needles prior to work commencing on site; Apply suitable control measures to reduce the risk of exposure; Provide suitable information and training within the site induction, including instruction not to touch any needles, unless they are trained to do so; Ensure arrangements are in place for the safe removal and disposal of such needles including trained operatives to undertake the task; Provide advice for anyone who is accidentally pricked by a needle. 		Project Manager
5.0	Guidance documents and references		
5.1	HSE Leptospirosis- Are you at risk?	INDG84	
6.0	Appendices		
6.1	Appendix 1 - Task specific control measures		
6.2	Appendix 2 – Supporting notes		

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Appendix 1

Task specific control measures

Task/process	Agreed code of practice	Supporting notes
Cutting materials with power tools- creation of dusts e.g.:- MDF or soft woods	<p>Wherever possible cutting is to be carried out in an external, designated area, with restricted access. Dust collection system to be in place.</p> <p>If the cutting is being carried out internally, a vacuum extraction system (inc. Class H or M filter) is to be used. Where possible windows and doors should be opened to provide general ventilation to the area. All cutting areas must display appropriate warning signs.</p> <p>Control measures in RAMS must detail how the workplace exposure limit (WEL) of 5mg/m3 is not exceeded.</p> <p>FFP3 respiratory protection must be worn at all times.</p>	
Cutting of stone products	<p>Wherever possible cutting is to be carried out in an external, designated area, with restricted access. All cutting areas must display appropriate warning signs.</p> <p>Consider using mechanical means such as slab splitters that produce very little dust or a wet-cut stone cutting table saw.</p> <p>For in-situ cutting the minimum precautions must be:</p> <ul style="list-style-type: none"> Water dust suppression systems, maintained in good working order; FFP3 respiratory protection, high impact eye protection and hearing protection. 	
Use of solvent based adhesives, pastes or paints	<p>Control measures to be in place include:</p> <ul style="list-style-type: none"> Restricted access to areas where such substances are being used; Use in external designated areas; Use in well ventilated area. Local exhaust ventilation systems to be used if ventilation is inadequate; Respiratory Protection as identified in RAMS. 	
Working with fibrous materials e.g. MMMF/ mineral wools	<p>When handling fibrous materials internally, the following PPE must be used:</p> <ul style="list-style-type: none"> Respiratory Protection; Gloves; Overalls; Eye protection as identified in RAMS. 	
Refuelling plant and equipment- diesel and petrol	<p>All refuelling of plant and equipment should be completed externally and the following controls observed:</p> <ul style="list-style-type: none"> Use mechanical pump systems, funnels etc. wherever possible; Store in suitable bunded containers; Jerry cans/ fuel containers to be UN1203 marked and labelled with the contents and the flammable diamond; PVC gloves to be worn when refuelling. <p>Where refuelling has to take place in a basement, this activity must be covered by a specific risk assessment.</p>	
Processes involving materials being heated e.g. welding, soldering	<p>The contractor must provide details of control measures which should include:-</p> <ul style="list-style-type: none"> Wherever possible use in external, designated areas (arc welding processes must be segregated off with flame retardant screens); Use in well ventilated area. Local exhaust ventilation systems to be used if ventilation is inadequate; Restricted access to work areas; Respiratory Protection as identified in RAMS. 	<p>Procedures and control measures such as segregation, fire precautions and permits are also required to reduce risks associated with heat generation.</p>

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Appendix 2

Supporting notes

Task/process	Agreed code of practice	Supporting notes
Conducting/ reviewing a COSHH assessment	<p>The assessment shall state:</p> <ul style="list-style-type: none"> What the substance is; including in what form- mist, liquid, gas etc.; What are the harmful components; How the substance may enter the body; What are the health effects of the substance; What process causes exposure to the substance; What is the level of exposure produced by the process; Who is exposed and when. <p>The assessment shall identify:</p> <ul style="list-style-type: none"> The control measures required to prevent / minimise the likelihood of exposure; Additional personal protective equipment [PPE] requirements; The use and maintenance requirements for equipment, ventilation, PPE, etc.; The monitoring processes including designated responsible persons; Health surveillance requirements and procedures- who, what, where and when; What training is to be provided to employees regarding use of the substances? 	
Manual handling operations assessment	<p>The assessment must consider:</p> <ul style="list-style-type: none"> Task: What the work involves; Individual: The capabilities, size etc. of the persons who may be performing the task; Load: The characteristics of the load: liquid, hot or cold, centre of gravity, etc.; Environment: When/ where the task is being completed, the condition of the work area, the route taken, etc. 	
Conducting/ reviewing a noise assessment	<p>A noise risk assessment, to be undertaken by a competent person should take account of the following:</p> <p>Step 1: List work activities with a likely noise hazard.</p> <p>Step 2: Determine the hazards e.g. machinery emitting noise exceeding 80dB.</p> <p>Step 3: Identify workers likely to be exposed to the hazard. Ensure affected parties are made aware of the assessment results and what they need to do to comply.</p> <p>Step 4: Confirm exposure by measuring noise levels. Manufacturers or suppliers provide details of noise levels generated by their machine but this can only be used as a guide as it does not take account of the environment being worked in; age or condition of the equipment so should only be used as a guide.</p> <p>Step 5: Hierarchy of control is as follows:</p> <ul style="list-style-type: none"> Eliminate the noise; Reduce the noise at source; Control the noise exposure; Supervision and training; PPE. 	<p>The first action value for daily noise exposure is 80 dB;</p> <p>The second action level for daily noise exposure is 85 dB;</p> <p>The daily exposure limit is 87 dB</p>

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